

# p-c-Src (Tyr 530): sc-16846

## BACKGROUND

The major translational products of the Src gene family are membrane-associated tyrosine protein kinases that lack transmembrane and external amino acid sequences. By virtue of their common structural motifs, the Src family is composed of nine members in vertebrates, including c-Src, c-Yes, Fgr, Yrk, Fyn, Lyn, Hck, Lck and Blk. Src family kinases, which contain an amino-terminal cell membrane anchor followed by SH3 and SH2 domains, transduce signals that are involved in the control of a variety of cellular processes, including proliferation, differentiation, motility and adhesion. Src family members are normally maintained in an inactive state and can be activated transiently during cellular events such as mitosis. Different subcellular locations of Src family kinases may be important for the regulation of specific cellular processes, such as mitogenesis, cytoskeletal organization and membrane trafficking. c-Src (also designated pp60Src, Src p60 and proto-oncogene tyrosine protein kinase Src) is expressed in a broad range of tissue and cell types, although the highest levels of c-Src are detected in neuronal tissues and platelets. c-Src may play a role in events associated with both neuronal differentiation and maintenance of mature neuronal cell functions.

## REFERENCES

1. Sakaguchi, A.Y. 1982. Organization of human proto-oncogenes. *Prog Clin Biol. Res.* 119: 93-103.
2. Brugge, J.S., et al. 1985. Neurons express high levels of a structurally modified, activated form of pp60<sup>c-src</sup>. *Nature* 316: 554-557.

## SOURCE

p-c-Src (Tyr 530) is available as either goat (sc-16846) or rabbit (sc-16846-R) polyclonal affinity purified antibody raised against a short amino acid sequence containing Tyr 530 phosphorylated c-Src of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-16846 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

p-c-Src (Tyr 530) is recommended for detection of Tyr 530 phosphorylated c-Src of human and rat origin, and Tyr 535 phosphorylated c-Src of mouse and *Xenopus laevis* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); also recommended for detection of correspondingly phosphorylated Fyn and c-Yes.

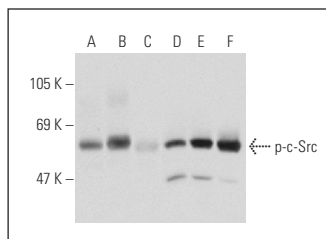
Molecular Weight of p-c-Src: 60 kDa.

Positive Controls: NIH/3T3 + PDGF cell lysate: sc-3803, Jurkat whole cell lysate: sc-2204 or Jurkat + pervanadate cell lysate: sc-24716.

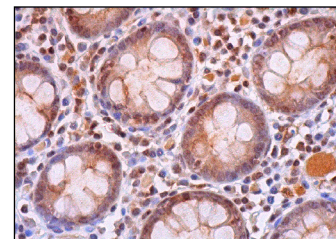
## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## DATA



Western blot analysis of c-Src phosphorylation in un-treated (A, D), serum starved and EGF treated (B, E) and serum starved, EGF and lambda protein phosphatase treated (C, F) HEK293 whole cell lysates. Antibodies tested include p-c-Src (Tyr 530)-R: sc-16846-R (A, B, C) and c-Src (17AT28): sc-130124 (D, E, F).



p-c-Src (Tyr 530): sc-16846. Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing nuclear and cytoplasmic staining of glandular cells and nuclear staining of endothelial and interstitial cells.

## SELECT PRODUCT CITATIONS

1. Francis, H., et al. 2004. cAMP stimulates the secretory and proliferative capacity of the rat intrahepatic biliary epithelium through changes in the PKA/Src/MEK/ERK1/2 pathway. *J. Hepatol.* 41: 528-537.
2. Chandrasekar, B., et al. 2005. The pro-atherogenic cytokine interleukin-18 induces CXCL16 expression in rat aortic smooth muscle cells via MyD88, interleukin-1 receptor-associated kinase, tumor necrosis factor receptor-associated factor 6, c-Src, phosphatidylinositol 3-kinase, Akt, c-Jun N-terminal kinase, and activator protein-1 signaling. *J. Biol. Chem.* 280: 26263-26277.
3. Wang, M.Y., et al. 2009. Connective tissue growth factor confers drug resistance in breast cancer through concomitant up-regulation of Bcl-x<sub>L</sub> and c-IAP1. *Cancer Res.* 69: 3482-3491.
4. Wang, X., et al. 2013. ER-α36-mediated gastric cancer cell proliferation via the c-Src pathway. *Oncol. Lett.* 6: 329-335.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **p-c-Src (H-3): sc-166860** or **p-c-Src (H-8): sc-166859**, our highly recommended monoclonal alternatives to p-c-Src (Tyr 530).